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A.D. 1905. April 1. N° 6945.
LAKE'S Complete Specification.

Fig. 1.

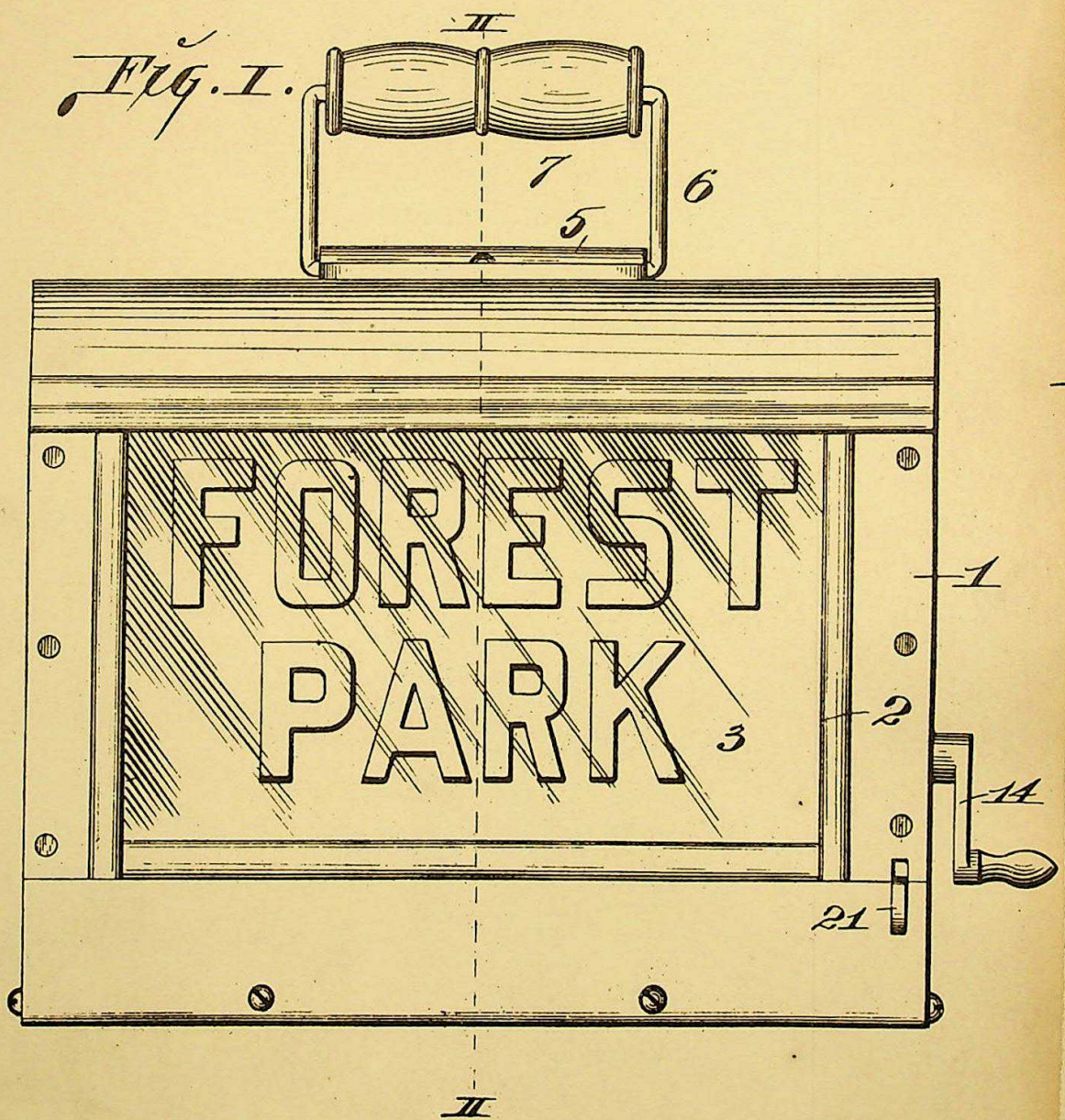

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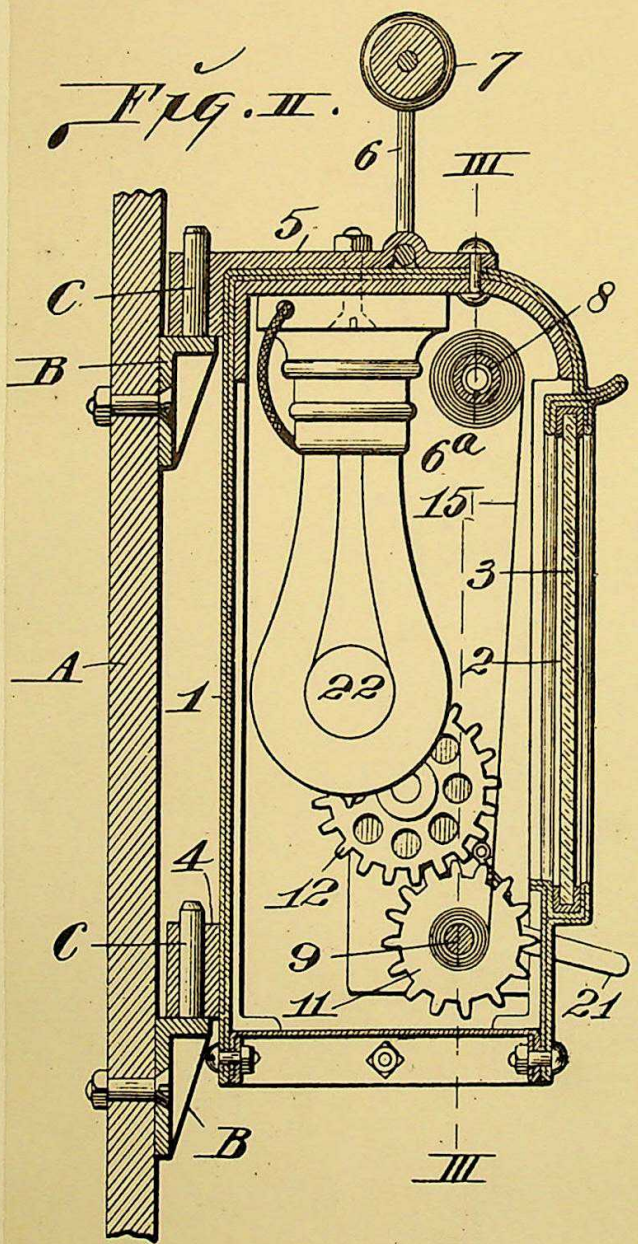
Fig. II.



Malby&Sons, Photo-Litho.

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Fig. III.

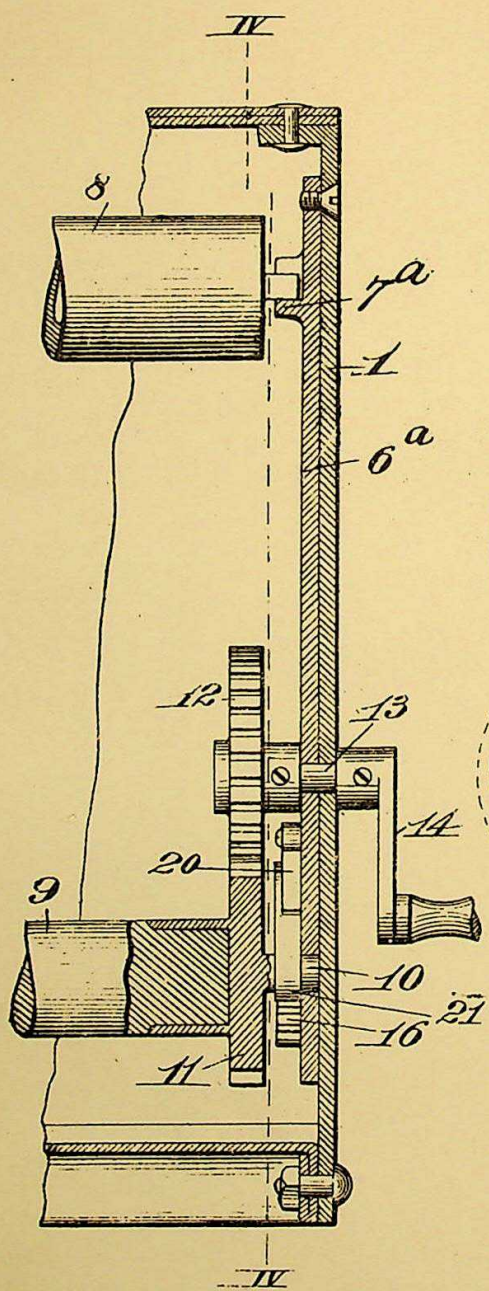
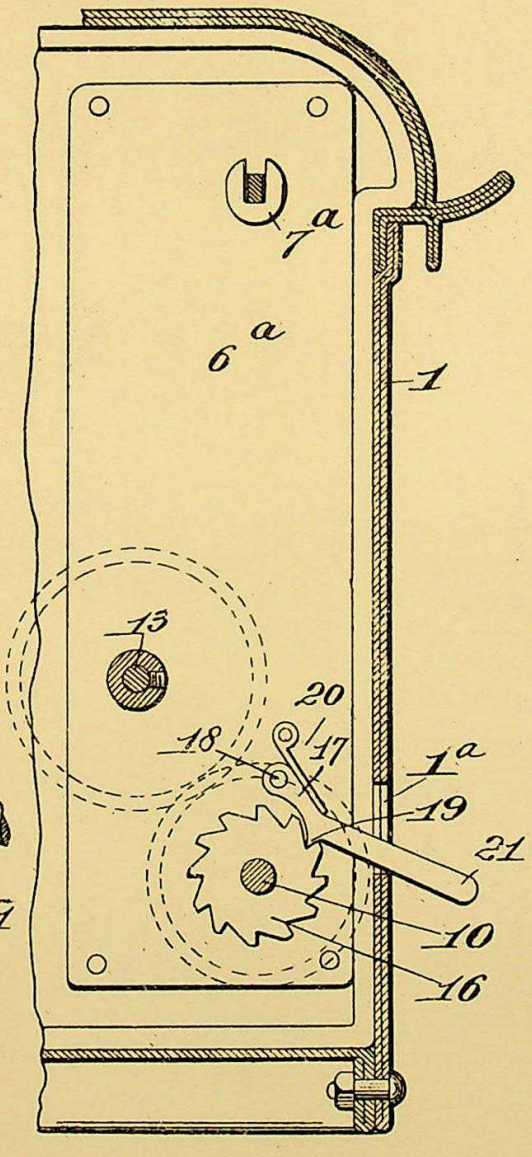


Fig. IV.



Malby & Sons, Photo-Litho.

N° 6945 A.D. 1905

Date of Application, 1st Apr., 1905—Accepted, 5th Oct., 1905

COMPLETE SPECIFICATION.

Communicated by The St. Louis Car Company, of 8000 North Broadway, St. Louis, in the State of Missouri, United States of America, Manufacturers.

"Improvements in Route Indicators for use on Tramcars and the like"

I, Henry Harris Lake, of the Firm of Haseltine, Lake & Co., Patent Agents, 7 & 8 Southampton Buildings, in the County of Middlesex, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to route indicators or signs for use on tramcars and the like of that kind in which a transparent apron bearing the names of the streets according to the line or lines over which the car travels, is employed, the said apron being connected to two rollers, one of which is a spring roller. An electric lamp is placed at the rear of the apron and in the box in which the rollers are mounted so that the name of the street borne on the apron can be readily determined. My improvements consist in the means which I employ for operating the rollers and shifting the apron so as to bring any particular name printed thereon into position at the rear of the window located in the box, and in the means for keeping the apron in any desired position.

My invention also includes means by which the box is detachably connected to and supported by the car so that it can be moved from end to end of the car when occasion demands and in other novel features which will be pointed out in the claims.

In order that my invention may be readily understood I have illustrated the same in the accompanying drawings wherein;—

Fig. I is a front elevation of the sign.

Fig. II is a vertical cross section taken on line II—II, Fig. I.

Fig. III is an enlarged vertical longitudinal section taken through one end of the sign.

Fig. IV is a vertical cross section taken on line IV—IV, Fig. III.

A designates the dash guard or other fixed part of a street car and B are brackets secured to the part A and provided with vertical pins C. These brackets and pins are located at both ends of the car upon which the sign is to be used.

1 designates the sign box which is preferably constructed of sheet metal and is provided at its forward side with a sight opening 2 in which is located a window 3. 4 is a lower tubular bracket fixed to the rear wall of the sign box and adapted to be slipped onto the pin of the lower bracket B. 5 is an upper bracket arm that is secured to the top of the sign box and provided with a tubular rear end that is adapted to be fitted to the pin of the upper bracket B. The bracket arm 5 serves to receive the loop 6 of a handle 7 by which the sign box may be carried and lifted to mount it upon the brackets B for sup-

[*Price 8d.*]

port, or to remove it from said brackets as occasion may demand. Secured to the inner sides of the end walls of the sign box 1 are bearing plates 6^a. These bearing plates are provided near their upper ends with bracket seats 7^a in which is mounted a spring roller 8 that extends longitudinally within the sign box.

9 designates a mechanically operated roller, the journals 10 of which are rotatably mounted in the bearing plates 6. At one end of the roller 9 is a pinion 11. 12 is a spur wheel which meshes with the pinion 11 and is carried by a shaft 13 journaled in the adjacent bearing plate 6^a and extending through the box end wall to which said plate is fitted. To the outer end of the shaft 13 is fixed a crank 14 through the medium of which the shaft 13 and spur wheel 12 are rotated to impart rotation to the mechanically operated roller 9.

15 designates an apron bearing the names of streets according to the line or lines over which a car equipped with my sign travels. One end of this apron is secured to the spring roller 8 and the other end is secured to the mechanically operated roller 9, the apron being adapted to be wound first onto one of said rollers and then onto the other.

16 designates a ratchet wheel fixed to one of the journals 10 of the mechanically operated roller 9. 17 is a dog pivoted at 18 to the bearing plate 6^a adjacent to the ratchet wheel 16 and having a point 19 that engages the teeth of the ratchet wheel 16. This dog is normally held to said ratchet wheel by a spring 20 that bears thereagainst. The dog terminates at its free end in a handle 21 which protrudes through a slot 1^a in the front of the sign box (see Figs. I and IV), so that it may be conveniently grasped to release the dog from the ratchet wheel 16. 22 is an incandescent electric lamp mounted in the sign box at the rear of the apron 15 and from which rays of light are shed onto said apron to render apparent to the observer the name of the street on the portion of said apron stretched at the rear of the window 3 for his knowledge as to the line on which the car equipped with the sign is being operated. The lamp 22 may be suitably connected to the usual electric wiring of an electrically operated street car, or current may be supplied thereto from any other source of electrical supply.

During the practical use of the sign after the apron 15 has been properly set to place the name of the line over which a car is to be operated it remains in such condition until the car is removed from the line over which it previously travelled, or the sign is removed from the car and applied to one of another line. When the sign is to be used on a car that travels to one end of the line and is then switched to turn the other end foremost, the sign may be readily removed and transferred to the opposite end of the car. When it is desired to shift the apron to bring the name of another line printed thereon into a position at the rear of the window 3, the parts are operated in the following manner; If the name of the street is upon the portion of the apron wound upon the spring roller 8, the crank 14 is rotated to impart rotation to the mechanically operated roller 9 through the medium of the intermeshing spur wheel 12 and pinion 11 and the apron is wound onto the roller 9 to a sufficient extent to bring into view at the back of the window 3 the name of the line it is desired to expose at such position. If, however, the name of the line is on the portion of the apron wound onto the mechanically operated roller 9, the handle of the dog 17 is grasped by the operator and the dog is gradually released from the ratchet wheel 16 so that the teeth of the ratchet wheel may pass the point 19 of the dog step by step, while the apron is wound onto the roller 8, due to its spring action, and unwound from the roller 9. When the name of the line desired is brought into view the dog is returned to form engagement with the ratchet wheel by the spring 20 so that the roller 9 is held from rotation while the spring roller creates constant exertion of strain upon the apron to hold it stretched throughout the portions thereof between the rollers.

Improvements in Route Indicators for use on Tramcars and the like.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, as communicated to me by my foreign correspondents, I declare that what I claim is:—

1. In a route indicator of the character described comprising a spring roller, an apron secured at one end to said roller and a second roller to which the outer end of said apron is secured, the provision of a ratchet wheel carried by said last named roller, a spring controlled dog for engagement with said ratchet wheel and means for imparting rotation to said last named roller, said means consisting of a pinion fixed to said roller, a spur wheel geared to said pinion, and a shaft and a crank having connection with said spur wheel for imparting rotation thereto substantially as described and for the purpose specified.

2. In a route indicator of the character described, brackets secured to the box, brackets provided with pins to which said box brackets are detachably fitted and a handle secured to one of said box brackets substantially as and for the purpose specified.

Dated this 31st day of August, 1905.

HASELTINE, LAKE & Co.,
7 & 8, Southampton Buildings, London, W.C.
Agents for the Applicant.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1905.